



When Should you Host Your Own Servers?

Aerva White Paper

Software-as-a-Service (SaaS) model has gained ascendency in many digital services including digital signage and mobile interactivity.

The model that organizations increasingly opt for is the hosted SaaS model, however, there are times when the customer-hosted server model is more suitable. In the customer-hosted model, the customer is prepared to maintain the server themselves and also pay for the server license. While the vendor can help setup these servers and provide software updates, the customer’s IT staff is responsible for the application of the updates, for server administration and security.

Comparison between Aerva’s SaaS model and customer-hosted server model:

	SaaS model	Customer-hosted server model
Server Hardware, power and network connectivity	Customer does not need to provide server hardware. Aerva provides the server access, with uptime, power reliability and network reliability.	Customer needs to provide own server hardware or a virtual server. Uptime of the server, power and network requirements and reliability is the customer’s responsibility.
Software license costs	Included in yearly maintenance charges.	Server license + annual maintenance fee.
Server setup fees	Included in software license fee.	Typically some server setup applies.
Security	Aerva takes responsibility for the security between server and end nodes.	Customer is responsible for the security of the server and transmissions between server and nodes.
Storage and transfer	Storage and transfer rates are provided as part of the software license fee.	Maintenance of the storage hardware/software is customer’s responsibility.
Server software updates	Automatic and free. All maintenance carried out by Aerva.	Customer will be provided occasional updates to apply. If Aerva is authorized to apply patches, Aerva can assist with updates.
Appropriate scenarios	<ul style="list-style-type: none"> a. Gradually increasing node count b. Little desire to acquire and maintain server hardware, server software and personnel c. Transfer of typical digital signage content (some images, videos, etc.) d. Corporate security policy allows use of servers maintained by outside vendors 	<ul style="list-style-type: none"> a. Large node count from start of project b. Transfer of very, very heavy content (e.g. high resolution videos) with high rate of change outs c. Corporate policy prohibits outside entity to host any servers d. LDAP or similar mechanism for user management

SaaS spares customers the overhead of maintaining their own servers and data centers, but the payment scheme also affects the budgeting for the SaaS model. Therefore, SaaS provides two conveniences:

1) Operational efficiency

2) Budgeting policy

First, Operational Efficiency has to do with the customer off-loading the server hardware and maintenance off their premises and books. This option was not available when bandwidth was low and expensive—but now that broadband is affordable and accessible, there is little need for customers (with no interest in hosting and managing their own servers) to be laden with this burden.

Secondly, it benefits customers who want to pay a constant operational cost each month or each year, rather than spend a large capital expenditure up front. Organizations' budgets have not been fully aware of constant incremental costs over time, therefore their budgets and the SaaS model could not co-exist. However, it has become apparent that both small operators and large organizations tend towards the SaaS method of payment.

Two drawbacks to SaaS models still have a valid rationale. First, in a SaaS model, the customer does not host both the hardware and data. For customers that have a very strict policy of keeping all data in-house, the SaaS model will take awhile to catch on. Customers will eventually migrate to the SaaS model when the risk of data loss and privacy becomes much smaller than the convenience of tapping into servers that are hosted by another entity. Over time we have seen this migration occur in organizations that never considered the SaaS model before.

If an organization has sufficient capital expenditure (capex) budget but little maintenance budget, the SaaS method of constant payment each month (or year) will not work, unless a company can modify its approach through pre-payments.

Due to the ever decreasing cost of bandwidth and use of browsers as the primary access medium, SaaS is here to stay. In digital signage, some providers have recognized this and are starting to offer a SaaS model.

Aerva Offering

Pick the Model That Works for You

Aerva has both models of server provisioning: Aerva-hosted/managed SaaS model and Customer-hosted/managed. Aerva's cloud is hosted by a world-class data center and Aerva manages these virtual servers 24x7.

Servers are Virtualized

For both reliability and security, Aerva servers in SaaS model are virtualized, which means there are many virtual servers running on top of physical servers. Hence, if any one physical server goes down, the service is not affected since the virtual servers move load to real servers that are running—this move of service (also called failover) is seamless to the end user.

Servers and Players are Secure

Aerva takes security very seriously. Aerva uses 1024 bit keys with SSL-encapsulated communication between the servers and players. Neither the servers nor the players have been compromised by security exploits since Aerva's founding in 2003.